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## आम की चटनी — विशिष्टि

( पहला पुनरीक्षण )

## Mango Chutney — Specification

( First Revision )

ICS 67.080.01

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भारतीय मानक ब्यूरो  
BUREAU OF INDIAN STANDARDS  
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## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Fruits, Vegetables and Allied Products Sectional Committee had been approved by the Food and Agriculture Division Council.

Mango chutney occupies an important place among the traditional foods processed in India, and there is good scope for the development of trade. It is, however, necessary to ensure the quality of chutney by exercising strict quality control which may be done on the basis of this Indian Standard. This standard is one of a series of Indian Standards on processed fruits and vegetables.

The standard was first published in 1966. It was amended in June 1996 to introduce scheme for labelling environment friendly products to be known as ECO-Mark at the instance of the Ministry of Environment and Forests (MoEF). This second revision is being carried out to harmonize the standard with Food Safety and Standards Act, 2006 and regulations framed thereunder. In this revision the following major changes have been made:

- a) Definition of mango chutney has been modified for inclusion of honey, condiments etc., as ingredients.
- b) Use of food additives as per *Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011* has been permitted.
- c) The limits of heavy metal contaminants has been modified as per *Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011*.
- d) The microbiological requirements has been modified as per *Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011*.

In the preparation of this standard, due consideration has been given to the *Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011* and *Legal Metrology (Packaged Commodities) Rules, 2011*. However, this standard is subject to restrictions imposed under these rules, wherever applicable.

The composition of the Committee responsible for the formulation of this standard is given at Annex F.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values ( *revised* )'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# *Indian Standard*

## MANGO CHUTNEY — SPECIFICATION

### ( First Revision )

**1 SCOPE**

This standard prescribes the requirements and methods of sampling and test for mango chutney.

**2 REFERENCES**

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

| <i>IS No./ISO No.</i> | <i>Title</i>                                                                                                                                                                                              |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 460 (Part 1) : 1985   | Specification for test sieves: Part 1 Wire cloth test sieves ( <i>third revision</i> )                                                                                                                    |
| ISO 1842 : 1991       | Fruit and vegetable products — Determination of pH                                                                                                                                                        |
| 2860 : 1964           | Methods of sampling and test for processed fruits and vegetables                                                                                                                                          |
| ISO 5521 : 1981       | Fruits, vegetables and derived products — Qualitative method for the detection of sulphur dioxide                                                                                                         |
| 5887 (Part 3) : 1999  | Methods for detection of bacteria responsible for food poisoning: Part 3 General guidance on methods for the detection of <i>Salmonella</i> ( <i>second revision</i> )                                    |
| 5887 (Part 5) : 1976  | Methods for detection of bacteria responsible for food poisoning: Part 5 Isolation, identification and enumeration of <i>Vibrio cholerae</i> and <i>Vibrio parahaemolyticus</i> ( <i>first revision</i> ) |
| 12014 (Part 1) : 1986 | Methods for determination of organic preservatives in foodstuffs: Part 1 Benzoic acid and its salts                                                                                                       |

*IS No./ISO No.**Title*

|                       |                                                                                                                                                        |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12014 (Part 3) : 1986 | Methods for determination of organic preservatives in foodstuffs: Part 2 Propionic acid and its salts                                                  |
| 13815 : 2010          | Fruit and vegetable products — Determination of soluble solids content — Refractometric method ( <i>first revision</i> )                               |
| 13846 : 2009          | Fruit and vegetable products — Determination of ash insoluble in hydrochloric acid ( <i>first revision</i> )                                           |
| 14397 : 1996          | Methods for detection, isolation and identification of pathogenic <i>E. coli</i> in foods                                                              |
| 14988 (Part 1) : 2001 | Microbiology of food and feeding stuffs — Horizontal method for detection and enumeration of <i>Listeria monocytogenes</i> : Part 1 Detection method   |
| ISO 15213 : 2003      | Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of sulfite-reducing bacteria growing under anaerobic conditions |

**3 TERMINOLOGY**

For the purpose of this standard, the following definitions shall apply.

**3.1 Absence of Defects** — Freedom from extraneous materials, such as stone, scraping and grit.

**3.2 Fruit Chutney** — A preparation, made from sound fruits and vegetables with spices, salt, onion, garlic, sugar, jaggery, vinegar or acetic acid, honey and condiments.

**4 GRADES**

Mango chutney shall be of two grades:

- a) Grade 1, and
- b) Grade 2.

## 5 REQUIREMENTS

### 5.1 General

Mango chutney shall be prepared from washed clean sound mango (*Mangifera indica* L.) of any suitable variety, which have been peeled, sliced or chopped or shredded or comminuted and cooked with nutritive sweeteners. It may contain salt, spices, condiments and any other ingredient suitable to the product and preserved by thermal processing/or other means. Raw peeled sliced papaya, when added as tenderizing agent to the chutney, shall not exceed 5 percent by weight of the fruit. Mango chutney shall contain not less than 50 percent (by weight) of total soluble solids.

**5.1.1** In case preserved mango slices are used for the manufacture of chutney, the sulphur dioxide content in the final product shall not exceed 100 ppm when tested as per ISO 5521.

### 5.2 Fruit Content

Fruit content in chutney shall be not less than 40 percent by weight when tested according to the method prescribed in Annex A.

### 5.3 Preservatives and Other Additives

Benzoic acid content shall not exceed 250 ppm when tested according to the method prescribed in IS 12014 (Part 1). Sorbic acid content shall not exceed 500 ppm when tested according to IS 12014 (Part 3). In addition, other permitted additives in the quantities as per *Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011* shall be used.

### 5.4 Finished Product

The two grades of mango chutney, determined according to the method prescribed in Annex B, shall display the following characteristics:

- Grade 1* — The mango chutney shall possess a good, uniform colour; shall be practically free from defects; shall possess a fleshy texture and normal characteristic taste and flavour; and shall score not less than 85 points.
- Grade 2* — The mango chutney shall possess a good, uniform colour; shall be reasonably free from defects; shall possess a reasonably fleshy texture and normal characteristic taste and flavour; and shall score not less than 75 points.

The maximum and minimum number of points to be scored by different factors shall be as given below. Scoring shall be done according to the method prescribed in Annex B.

| Factor             | Maximum | Minimum |         |
|--------------------|---------|---------|---------|
|                    |         | Grade 1 | Grade 2 |
| Colour and texture | 25      | 19      | 16      |
| Taste and flavour  | 50      | 37      | 33      |
| Absence of defects | 25      | 19      | 16      |

### 5.5 Colour and Texture

The colour and texture of the two grades of mango chutney shall be as follows:

- Grade 1* — The chutney shall possess a good, practically uniform colour; shall be practically free from discolouration due to oxidation or other causes. The material shall possess a fleshy texture and shall be practically free from being fibrous.
- Grade 2* — The chutney shall possess a good, reasonably uniform colour; shall be reasonably free from discolouration due to oxidation or other causes. The material shall possess a reasonably tender texture and shall be reasonably free from being fibrous.

### 5.6 Taste and Flavour

- Grade 1* — The chutney shall possess a pleasant aroma and flavour, characteristic of the product. The material shall be devoid of any objectionable or off-taste smell or odour.
- Grade 2* — The chutney shall possess a pleasant aroma and flavour, characteristic of the product.

The material shall be reasonably free from objectionable, metallic or off-taste smell or odour.

### 5.7 Absence of Defects

- Grade 1* — The material in this grade shall be practically free from defects, such as stone or scrapings, grit and other extraneous material.
- Grade 2* — The material in this grade shall be reasonably free from defects, such as stone or scrapings, grit and other extraneous material.

**5.8** The material shall also conform to the requirements prescribed in Table 1 and Table 2.

**Table 1 Requirements for Mango Chutney**  
( Clause 5.8 )

| Sl No. | Characteristic                                       | Requirement       | Method of test, Ref to IS or Cl. No. |
|--------|------------------------------------------------------|-------------------|--------------------------------------|
| (1)    | (2)                                                  | (3)               | (4)                                  |
| i)     | Total soluble solids ( <i>m/m</i> ), <i>Min</i>      | 50 %              | 13815                                |
| ii)    | Acidity, expressed as acetic acid, percent by weight | 0.50 – 3.0        | 10 of IS 2860                        |
| iii)   | <i>pH</i>                                            | Not more than 4.6 | ISO 1842                             |
| iv)    | Total ash, percent by weight, <i>Max</i>             | 5.0               | Annex C                              |
| v)     | Acid insoluble ash, percent by weight, <i>Max</i>    | 0.5               | 13846                                |
| vi)    | Arsenic, ppm, <i>Max</i>                             | 1.1               | 13 of IS 2860                        |
| vii)   | Lead, ppm, <i>Max</i>                                | 2.5               | 14 of IS 2860                        |
| viii)  | Copper, ppm, <i>Max</i>                              | 30.0              | 15 of IS 2860                        |
| ix)    | Zinc, ppm, <i>Max</i>                                | 50.0              | 16 of IS 2860                        |
| x)     | Tin, ppm, <i>Max</i>                                 | 250               | 17 of IS 2860                        |

**Table 2 Microbiological Requirements for Mango Chutney**  
( Clause 5.8 )

| Sl No.                                              | Characteristic                                                       | Requirement                    |     |             |     | Method of Test, Ref to<br>IS or Cl. No. |
|-----------------------------------------------------|----------------------------------------------------------------------|--------------------------------|-----|-------------|-----|-----------------------------------------|
|                                                     |                                                                      | Sampling<br>Plan <sup>1)</sup> |     | Limit (cfu) |     |                                         |
|                                                     |                                                                      | n                              | c   | m           | M   |                                         |
| (1)                                                 | (2)                                                                  | (3)                            | (4) | (5)         | (6) | (7)                                     |
| i)                                                  | <i>Salmonella</i>                                                    | 5                              | 0   | Absent/25g  | NA  | 5887 (Part 3)                           |
| ii)                                                 | <i>Listeria monocytogenes</i>                                        | 5                              | 0   | Absent/25g  | NA  | 14988 (Part 1)                          |
| iii)                                                | Sulphite Reducing Clostridia (SRC)                                   | 5                              | 0   | Absent/25g  | NA  | ISO 15213                               |
| iv)                                                 | <i>E. Coli</i> 0157 and Vero or Shiga toxin producing <i>E. coli</i> | 5                              | 0   | Absent/25g  | NA  | 14397                                   |
| v)                                                  | <i>Vibrio cholerae</i>                                               | 5                              | 0   | Absent/25g  | NA  | 5887 (Part 5)                           |
| <sup>1)</sup> For sampling plan <i>see</i> Annex D. |                                                                      |                                |     |             |     |                                         |

<sup>1)</sup>For sampling plan see Annex D.

## 5.9 Minimum Fill

The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container when tested in accordance with the method prescribed in Annex E, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20 °C which the sealed container is capable of holding when completely filled.

## 5.10 Additional Requirements for ECO-Mark

### 5.10.1 General Requirements

**5.10.1.1** The product shall conform to the requirements prescribed under **5.1** to **5.8**.

**5.10.1.2** The manufacturers shall produce to BIS environmental consent clearance from the concerned State Pollution Control Board as per the norms laid down under the *Water (Prevention and Control of Pollution) Act, 1974; Air (Prevention and*

*Control of Pollution) Act, 1981; Water (Prevention and Control of Pollution) Cess Act, 1977* respectively, along with the authorization, if required, under the *Environment (Protection) Act, 1986*, while applying for ECO-Mark.

**5.10.1.3** The product/packaging may also display in brief the criteria based on which the product has been labeled environment friendly.

**5.10.1.4** The material used for product/packing shall be recyclable or biodegradable.

**5.6.1.5** The date of manufacture and date of expiry shall be declared on the product/package by the manufacturer.

**5.10.1.6** The product shall be microbiologically safe and shall be free from bacterial and fungal toxins.

**5.10.1.7** The product/package or leaflet accompanying it may display instructions of proper use, storage

and transport (including refrigeration temperature compliance) so as to maximize the product performance, safety and minimize wastage.

## **6 PACKING AND MARKING**

### **6.1 Packing**

Mango chutney shall be packed in rigid or flexible food grade packaging material conforming to relevant BIS standards, wherever available.

### **6.2 Marking**

Each container shall be marked with the following particulars:

- a) Name and grade of the material;
- b) Name and address of the manufacturer;
- c) Net weight of the contents;
- d) Date of manufacture or code number indicating the date of manufacture, to be embossed;
- e) List of additives, if used;
- f) Best before date;
- g) Storage conditions and temperature;

h) Manufacturing licence number; and

j) Any other requirement as stipulated under *Food Safety and Standards Act*, 2006 and regulations framed thereunder and *Legal Metrology Act*, 2009 and rules framed thereunder.

### **6.3 BIS Certification Marking**

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

### **6.4 ECO-Mark**

The product may also be marked with the ECO-Mark, the details of which may be obtained from the Bureau of Indian Standards.

## **7 SAMPLING**

The method of drawing representative samples of the material and the criteria for conformity shall be as prescribed in **3** of IS 2860.

## ANNEX A

( Clause 5.2 )

### DETERMINATION OF THE FRUIT CONTENT

#### A-1 APPARATUS

**A-1.1 IS Sieve (2.00 mm)** — Alternatively, BS Sieve 8 or ASTM Sieve 10 or Tyler Sieve 9 may be used as that are equivalent to 2.00 mm IS Sieve [see IS 460 (Part I)].

#### A-2 PROCEDURE

Take 50 g of the representative sample in a flask and stir it with 200 ml of boiling water for about two minutes and transfer to a previously weighed IS Sieve (2.00 mm). Allow to drain for two minutes. Weigh the sieve along with the remaining portion and calculate the percentage of fruit content.

## ANNEX B

( Clause 5.4 )

### DETERMINATION OF THE GRADE OF THE PRODUCT

#### B-1 APPARATUS

**B-1.1 White Porcelain Bowls** — Of appropriate size to hold the contents of the container/package under examination.

**B-1.2 Stainless Steel Spoons** — Table spoons.

#### B-2 PROCEDURE

##### B-2.1 Panel of Judges

Grades of the product shall be judged by a panel of three to five judges. All the judges constituting a panel shall be conversant with the factors governing the quality of the product. The containers shall be opened and the contents poured separately into white porcelain bowls. Each judge shall independently examine the contents from each of the containers and indicate scores for different characteristics.

**B-2.1.1** The judges shall consider the following characteristics:

- a) Colour and texture;
- b) taste and flavour; and
- c) absence of defects.

##### B-2.2 System of Scoring

The variations within each factor are so described in Table 3 below that the scores may be ascertained for each factor and expressed numerically. The relative importance of each factor has been expressed numerically on a scale of 100. Each judge shall indicate

the score for the individual factors, by the method described in Table 3, and record his observations in the Score Sheet.

**B-2.2.1** The scores as number of points indicated by the judges for the contents of each container for the three factors ( see **B-2.1.1** ) shall be in a tabular form in the Score Card, and the average score calculated for each factor with overall average for each container entered in the appropriate column (see Table 3 and **B-2.3.2** ).

##### B-2.3 Ascertaining the Grade

###### B-2.3.1 Consistency Among Judges

To ascertain the consistency of judgment among the judges, the total score indicated by each of them for the contents of the same container shall be calculated by adding up the score for the various individual characteristics. If the difference between the maximum and the minimum of the total scores so obtained does not exceed  $(K + 5)$ , where  $K$  is the number of judges, the scoring shall be deemed as consistent for the container under consideration. If the difference exceeds  $(K + 5)$ , the score that is farthest from its immediate neighbour (the scores being arranged in one order) shall be discarded and the consistency among the remaining judges shall be examined.

**B-2.3.2** When the consistency (see **B-2.3.1**) is thus established, the overall average scores indicated by the judges whose scoring has been found to be consistent, shall be calculated for each container. The average



score for each of the individual characteristic shall also be calculated by taking into account the corresponding scores as given by the same judges for the contents of the same container.

### B-2.3.3 Assignment of Grade

In order to assign a grade for the contents of a container, the following procedure shall be adopted.

- a) *For Grade 1* — The score for each factor individually shall be not less than 75 percent of the maximum score obtainable, and the overall average score shall be not less than 85 points.
- b) *For Grade 2* — The score for each factor individually shall be not less than 65 percent of the maximum score obtainable, and the over-all average score shall not be less than 75 points.

**Table 3 Method for Giving Scores for Mango Chutney**  
( Clause B-2.2 )

| Organoleptic Characteristic | Description                                                                                                 | Maximum Number of Points |
|-----------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------|
| Colour and texture          | Good, practically uniform colour; fleshy texture, not at all fibrous                                        | 25                       |
|                             | Not quite uniform colour, slightly varying shades of the characteristic colour; slight discolouration       | 19                       |
|                             | Not very uniform; reasonably varying shades of characteristic colour; some discolouration                   | 16                       |
|                             | Black colour; non-uniform; total discolouration                                                             | 0                        |
| Taste and flavour           | Pleasant aroma and taste characteristic of the product; free from objectionable or off-taste smell or odour | 50                       |
|                             | Slight variation in normal flavour; taste characteristic, but tending to be slightly bitter                 | 37                       |
|                             | Flat and somewhat dull taste; slightly objectionable smell                                                  | 33                       |
|                             | Objectionable taste; offensive smell                                                                        | 0                        |
| Absence of defects          | Free from defects, such as stone or scrapings, grit and other extraneous material                           | 25                       |
|                             | One or two pieces of stone or scraping; a stray piece of extraneous material                                | 19                       |
|                             | A few pieces of stone and scrapings, which may be gritty to feel                                            | 16                       |
|                             | Gritty, lot of extraneous material, pieces of stone and scraping                                            | 0                        |

## ANNEX C

[ Table 1, Item (iv) ]

### DETERMINATION OF TOTAL ASH

#### C-1 PROCEDURE

**C-1.1** Weigh accurately about 2 g of the material in a tared porcelain, silica or platinum dish. Ignite with the flame of a Meker burner for about one hour. Complete the ignition by keeping in a muffle furnace at  $600^{\circ} \pm 20^{\circ} \text{C}$  until grey ash results. Cool in a desiccator and weigh. Ignite the dish again in the muffle furnace for 30 minutes, cool and weigh. Repeat this process until the difference in weight between two successive weighings is less than 1 mg. Note the lowest weight.

**C-1.2** Reserve the dish containing this ash for the determination of acid insoluble ash.

#### C-2 CALCULATION

**C-2.1** Total ash (on moisture-free basis), percent by

$$\text{weight} = \frac{100 (W_2 - W)}{W_1 - W}$$

where

$W_2$  = the lowest weight in g, of the dish with the ash;

$W$  = weight in g, of the empty dish; and

$W_1$  = weight in g, of the dish with the dried material taken for the test.



**ANNEX D**

( Table 2 )

**SAMPLING PLAN FOR MICROBIOLOGICAL REQUIREMENTS****D-1 SAMPLING PLAN FOR MICROBIOLOGICAL REQUIREMENTS**

The terms  $n$ ,  $c$ ,  $m$  and  $M$  used in this standard have the following meaning:

- a)  $n$  = Number of units comprising a sample.
- b)  $c$  = Maximum allowable number of units having microbiological counts above  $m$  for 2-class sampling plan and between  $m$  and  $M$  for 3-class sampling plan.

c)  $m$  = Microbiological limit that separates unsatisfactory from satisfactory in a 2-class sampling plan or acceptable from satisfactory in a 3-class sampling plan.

d)  $M$  = Microbiological limit that separates unsatisfactory from satisfactory in a 3-class sampling plan.

**D-2 INTERPRETATION OF RESULTS**

| 2-Class Sampling Plan (where $n$ , $c$ and $m$ are specified)                                                                                                                                                                                                              | 3-Class Sampling Plan (where $n$ , $c$ , $m$ and $M$ are specified)                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. Satisfactory, if all the values observed are <math>\leq m</math></li> <li>2. Unsatisfactory, if one or more of the values observed are <math>&gt; m</math> or more than <math>c</math> values are <math>&gt; m</math></li> </ol> | <ol style="list-style-type: none"> <li>1. Satisfactory, if all the values observed are <math>\leq m</math></li> <li>2. Acceptable, if a maximum of <math>c</math> values are between <math>m</math> and <math>M</math> and the rest of the values are observed as <math>\leq m</math></li> <li>3. Unsatisfactory, if one or more of the values observed are <math>&gt; M</math> or more than <math>c</math> values are <math>&gt; m</math></li> </ol> |

**ANNEX E**

( Clause 5.9 )

**DETERMINATION OF WATER CAPACITY****E-1 GENERAL**

This method applies to metal, glass and plastic containers.

**E-2 PROCEDURE****E-2.1 Metal Containers**

**E-2.1.1** Select a container which is undamaged in all respects.

**E-2.1.2** Wash, dry and weigh the empty container after cutting out the lid without removing or altering the height of the double seam.

**E-2.1.3** Fill the container with distilled water at 20 °C to 4.8 mm vertical distance below the top level of the container, and weigh the container thus filled.

**E-2.2 Glass Containers**

**E-2.2.1** Select a container which is undamaged in all respects.

**E-2.2.2** Wash, dry and weigh the empty container.

**E-2.2.3** Fill the container with distilled water at 20 °C to the level of the top thereof, and weigh the container thus filled.

**E-3 CALCULATION AND EXPRESSION OF RESULTS****E-3.1 Metal Containers**

Subtract the mass found in **E-2.1.2** from the mass found in **E-2.1.3**. The difference shall be considered to be the mass of water required to fill the container. Results are expressed as ml of water ( $V_0$ ).

**E-3.2 Glass Containers**

Subtract the mass found in **E-2.2.2** from the mass found in **E-2.2.3**. The difference shall be considered to be the mass of water required to fill the container. Results are expressed as ml of water ( $V_0$ ).

**E-4 CALCULATION OF PERCENTAGE FILL**

To determine the percentage fill in the container, empty the entire contents of the container in a graduated volumetric cylinder and note down the volume ( $V_1$ ). The formula for the calculation is as follows:

$$\text{Percentage fill} = \frac{V_1}{V_0} \times 100$$

where

 $V_0$  = Water capacity of the container; and $V_1$  = Volume of contents filled in the container.**SCORE SHEET FOR INDIVIDUAL JUDGE**

Sample No. ....

Date of Sampling.....

DETAILS OF THE SAMPLE: a) Product..... b) Name of Manufacturer.....

c) Type..... d) Batch No. .... e) Date of Manufacture.....

**Sample Cans**

| FACTORS            | SCORE POINTS  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------|---------------|---|---|---|---|---|---|---|---|---|----|
| Colour and Texture | Grade 1 19–25 |   |   |   |   |   |   |   |   |   |    |
|                    | Grade 2 16–18 |   |   |   |   |   |   |   |   |   |    |
| Taste and Flavour  | Grade 1 37–50 |   |   |   |   |   |   |   |   |   |    |
|                    | Grade 2 33–37 |   |   |   |   |   |   |   |   |   |    |
| Absence of Defects | Grade 1 19–25 |   |   |   |   |   |   |   |   |   |    |
|                    | Grade 2 16–18 |   |   |   |   |   |   |   |   |   |    |

Signature of the Judge.....

Date.....

**SCORE CARD**

Sample Number.....

Date of Sampling.....

DETAILS OF THE SAMPLE CAN: a) Product..... b) Name of Manufacturer..... c) Type.....

d) Batch No. .... e) Date of Manufacture.....

| FACTOR→                   | COLOUR AND TEXTURE |   |   |   |   | TASTE AND FLAVOUR |   |   |   |   | ABSENCE OF DEFECTS |   |   |   |   | TOTAL SCORES |   |   |   |   | AVERAGE SCORE FOR  |                   |                    |       | GRADE OF THE CAN |
|---------------------------|--------------------|---|---|---|---|-------------------|---|---|---|---|--------------------|---|---|---|---|--------------|---|---|---|---|--------------------|-------------------|--------------------|-------|------------------|
| Judge→<br>Can Number<br>↓ | A                  | B | C | D | E | A                 | B | C | D | E | A                  | B | C | D | E | A            | B | C | D | E | Colour and Texture | Taste and Flavour | Absence of Defects | Total |                  |
|                           |                    |   |   |   |   |                   |   |   |   |   |                    |   |   |   |   |              |   |   |   |   |                    |                   |                    |       |                  |

Remarks:

Signature .....

Date.....

**ANNEX F***( Foreword )***COMMITTEE COMPOSITION**

Fruits, Vegetables and Allied Products Sectional Committee, FAD 10

| <i>Organization</i>                                                                  | <i>Representative(s)</i>                                                      |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Kota Agricultural University, Kota                                                   | PROF D. C. JOSHI ( <b>Chairman</b> )                                          |
| APEDA, New Delhi                                                                     | SHRI U. K. VATS                                                               |
| All India Food Processors' Association, New Delhi                                    | SHRI D. V. MALHAN<br>MS DEEKSHA SRIVASTAVA ( <i>Alternate</i> )               |
| Central Food Technological Research Institute,<br>Mysore                             | DR P. VIJAYANAND<br>DR A. S. CHAUHAN ( <i>Alternate</i> )                     |
| Central Institute of Post Harvest Engineering and<br>Technology, Ludhiana            | DR RAMESH KUMAR                                                               |
| Confederation of Indian Food Trade & Industry,<br>New Delhi                          | MS MONIKA RAWAT<br>MS PRIYANKA SHARMA ( <i>Alternate</i> )                    |
| Consumer Guidance Society of India, Mumbai                                           | DR SITARAM DIXIT<br>DR M. S. KAMATH ( <i>Alternate</i> )                      |
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